

**ABSTRACT OF THE DISCLOSURE**

Methods and apparatus for spatially-shifting and multiplexing optical signals for transmission in a wavelength division multiplexed or dense wavelength division multiplexed optical communication system linearly disperse the optical signals and then spatially, laterally shift the signals. The spatially shifted, dispersed signals are thereafter re-imaged to remove the  
5 linear dispersion so that the spatially shifted signals can then be transmitted through the optical communication system. The spatially-shifted, multiplexed signals have a flat passband with sharp transition points so that the transmitted signals are routed through the optical communication system with low loss and high signal integrity.